

Specification For Approval

Customer: MTC

Part name: IPEX-2.4G-5dBi-White Knife Type Rubber Antenna-137 Gray-L220MM

Part No: 3. 08. 0102000016

Customer Part No: 304WIFI1292

Customer confirmation		
Confirmation	check	Approver

Manufacturer recognition			
Sales	Drafters	check	Approver
MeiLi	Lizhxiao	Zhouxihua	Lihe
Thank you for giving us the chance to approve samples. If you agree to pass it, please kindly send it back to us.			

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Modification record

edition	date	ngineer	Modification
A0	2021. 1. 20		New

1 Product dimension drawing

RoHS Compliant

END PRODUCT DRAWING 成品图		
REV A0	DATE	DESCRIPTION NEW
		ECN NO.
		NAME

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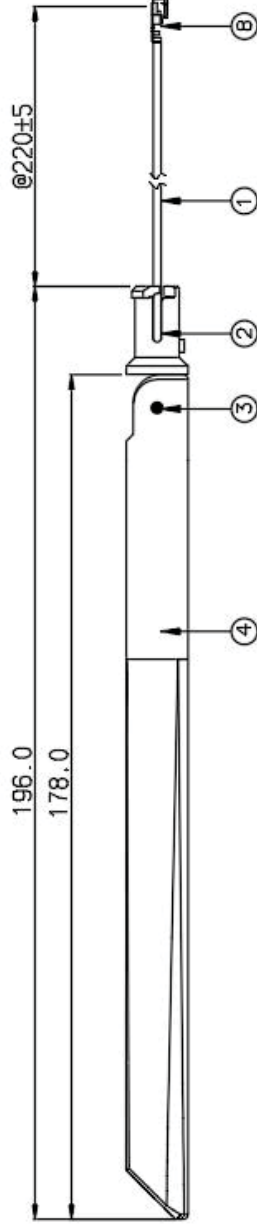
B

A

1

2

3



Remark:

1. Plastic/wire without damage;
2. The finished product must be 100% network test OK;
3. The finished product must be 100% fully inspected OK;
4. Adopt environmental protection process;
5. Mark the @ part as the key control size.
6. 1/100PE bags must be labeled with ROHS
7. The outer box does not need to be labeled with ROHS.

工作频段 (Frequency Range)	2400-2500MHz
增益 (Gain)	5dBi
电压驻波比 (VSWR)	<2.0
极化方式 (Polarization)	Linear
特性阻抗 (Impedance)	50 ohm

⑧ 2027B-112R-37

⑦ BLACK-EVA

⑥ Brass - material

⑤ 2.4G-PCB

④ Rubber rod sleeve

③ Rubber rivets

② white

① 1.37 Gray

No. Name

客户料号 (CUSTOMER NO)
304WIFI1292

产品名称 (PRODUCT NAME)

IPEX-2.4G-5dBi-White Knife Type Rubber Antenna-137 Gray-L220MM

产品料号 (PRODUCT NO) 单位 (UNIT) M M 比例 (SIZE) FREE

3.08.0102000016 页次 (PAGE) 1 OF 1 幅面 (FORMAT) A4

设计 (D S) li

审核 (CHK) zhou

核准 (APPD) li

深圳飞宇电子有限公司
SHENZHEN FLY ELECTRONIC CO.,LTD

2. Product appearance

Size	Φ13*196MM	Fixed mode	magnetic
Weight	/	Connector	IPEX
colour	WHITE	Cable	RG137-220mm

3. Antenna performance parameters

Project	Character	Unit
Frequency domain	2400-2500	MHz
Output impedance	50	Ω
SWR	Compare the waveform	---
Gain	4.64	dBi
Polarization mode	Vertical polarization	
Radiation direction	All-around	
Max input power	5	W
Operating temperature	-40~+70	℃
Storage temperature	-45~+75	℃

4. Cable specification

RG 137 		
Structure parameter		
	Material Science	Diameter (mm)
1. Inner conductor	Bare copper wire	7/0.102±0.02
2. Insulator	FEP	Φ0.86±0.05
3. Outer conductor	Copper clad aluminum	5*16/0.05mm
4. Sheath	FEP	1.37±0.05
Electric performance parameters		
Capacitance (pF/m)		95.8 PF/M
Impedance (ohm)		50±3
Rate (%)		69%
Bending radius (mm)		7MM
Maximum working voltage (VMS)		1000
Maximum operating frequency (MHz)		6000
Operating temperature range (℃)		-40 至 +80

Attenuation	
(MHz)	(≥dB/m)
100	0.47
400	0.93
1000	1.48
2000	2.15
3000	2.65
4000	3.56
5000	4.10
6000	4.75

5. environmental test

Environmental test report

5.1 High and low temperature and humidity test

Part No			Product Specifications	
Test items	High temperature, low temperature and constant humidity test			
Testing equipment	Constant temperature and humidity test chamber	number of test; quantity of test		
Inspection standard	The coating on the metal surface does not fall off, crack, wrinkle and other defects;No discoloration, cracks, deformation, degumming and other phenomena are allowed on the non-metallic parts.			
Test name	Test items	requirement	test method	Result judgment
High temperature test	Temperature (℃) Test sample temperature time (H) Test duration (H) recovery time (H)	85±3 1 96 2	Test procedure: a) Put the test piece into the test box, and then adjust the temperature of the high temperature box to 85 ℃ ± 3 ℃ , and monitor the time. b) After the test, they were placed at room temperature for 2 hours for routine inspection.	OK
low temperature test	temperature (℃) Temperature time of test sample (h) Test duration (h) recovery time (h)	-40±3 1 96 2	Test steps: A) Put the tested parts into the test chamber, and then set the temperature of the cryogenic chamber to -40℃±3℃ for monitoring time. B) Place at room temperature for 2 hours after the test for routine	OK

			inspection.	
steady-state damp heat test	temperature (°C) relative humidity (%) Test duration (h) recovery time (h)	+85±2 85 96 2	A) Put the tested parts into the test chamber, then set the temperature of the chamber to +85 ° C ±2 ° C and the humidity to 85%, and monitor the time. B) Place at room temperature for 2 hours after the test for routine inspection.	OK
inspector: Luxiaojun audit: Liuxiaoping ratify: Liuzaiping				

5.2 Free drop test

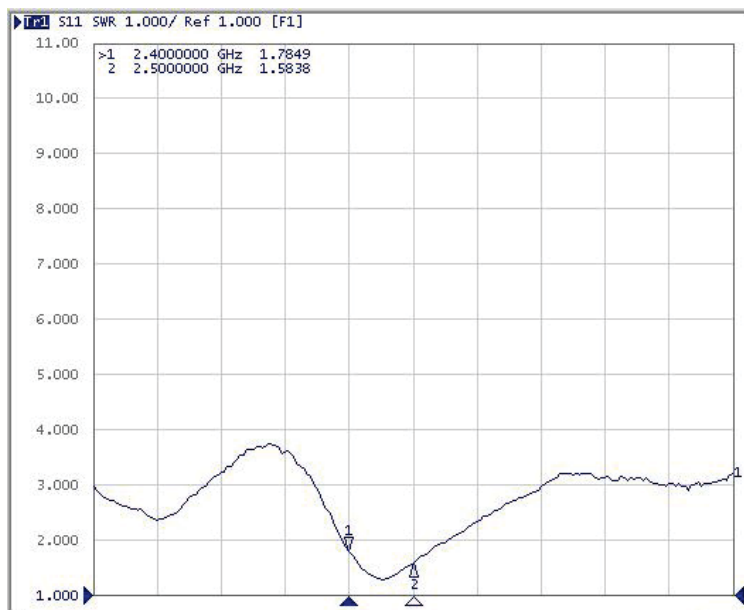
P/N		Commodity specification		
test item	Free drop test			
checkout equipment	One meter high table top	number of test		
inspection standard	1. The product falls at a height of 1 meter without falling off, cracking or other defects, and without appearance deformation.			
Name of test	test item	ask for	test method	results of evaluation
Free drop test	Drop height: 1000mm	It's going to fall 2 times	Test steps: A) Drop the tested part at a height of 1000mm and conduct routine inspection after the test.	OK
inspector: Luxiaojun audit: Liuxiaoping ratify: Liuzaiping				

6.3 salt spray test

P/N			Commodity specification		
test item	salt spray test				
checkout equipment	Fog tester		number of test		
inspection standard	1. The metal surface coating does not fall off;Appearance without rust, corrosion, oxidation and other adverse phenomena.				
Name of test	test item	ask for	test method	results of evaluation	
salt spray test	1. NaCl concentration: 2. air pressure:	40-60g/1kg 1.0±0.01kgf m² 6.5-7.2	A. Laboratory temperature: B. Pressure drum	OK	

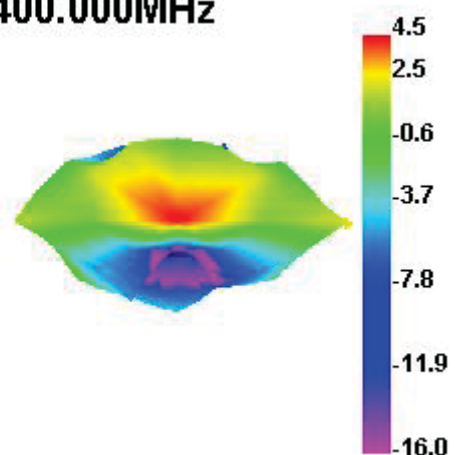
	3. PH price: 4. volume of spray: 5. 5. Salt water test temperature setting A. Laboratory temperature: B. Pressure barrel temperature: 6. Test time:	1. 0-2. 0ml/80c/h。 35±1℃ 47±1℃ 24H	temperature: Test procedure: A) Modulate the salt spray tester to relevant test conditions. B) Place the tested part in the salt spray tester for 24 hours. After the test, rinse with clean water, visually inspect the appearance of the tested parts, and conduct routine inspection. 6. Test time:	
inspector: Luxiaojun		audit: Liuxiaoping		ratify: Liuzaiping

6. Antenna performance tes

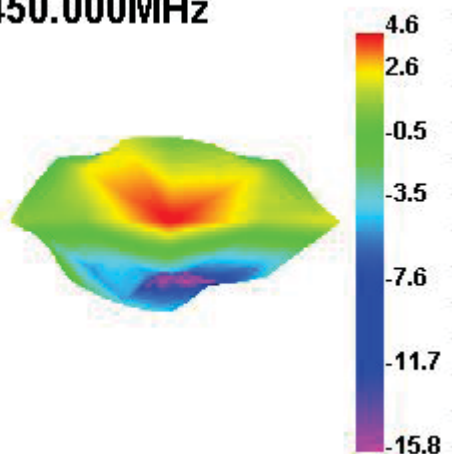


Passive Test For 2400-2500		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	63.61	4.53
2450	61.94	4.64
2500	60.09	4.54

2400.000MHz



2450.000MHz



2500.000MHz

